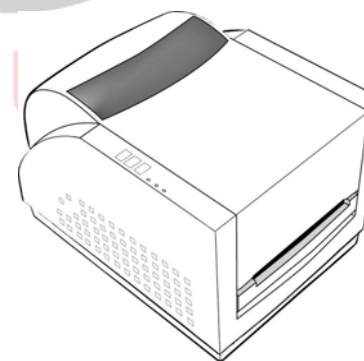MANUALE COMPACT 400 PLUS (R-400 PLUS)
MANUALE COMPACT 600 (R-600)
STAMPANTI DI CODICI A BARRE COMMERCIALI

CONTENTS

1. Checking Your Box

Receiving the box of your printer, you are advised to check first for the possible shipping damage. There are two ways you can do it:

    1.1   Inspect the outer appearances of both the box and the printer for possible damage.

    1.2   Raise the top cover of the printer to see if the media compartments are in order.

If damages did occur, immediately file the claim to the shipping company for settlement.

Having performed the primary inspections, next step, please check whether you have received the following accessories together with the printer. If there is any item missing, contact your local dealer to get it.

Printer

Sample Media   Ribbon

User's Manual

Ribbon Core Adapter

Media Hanger
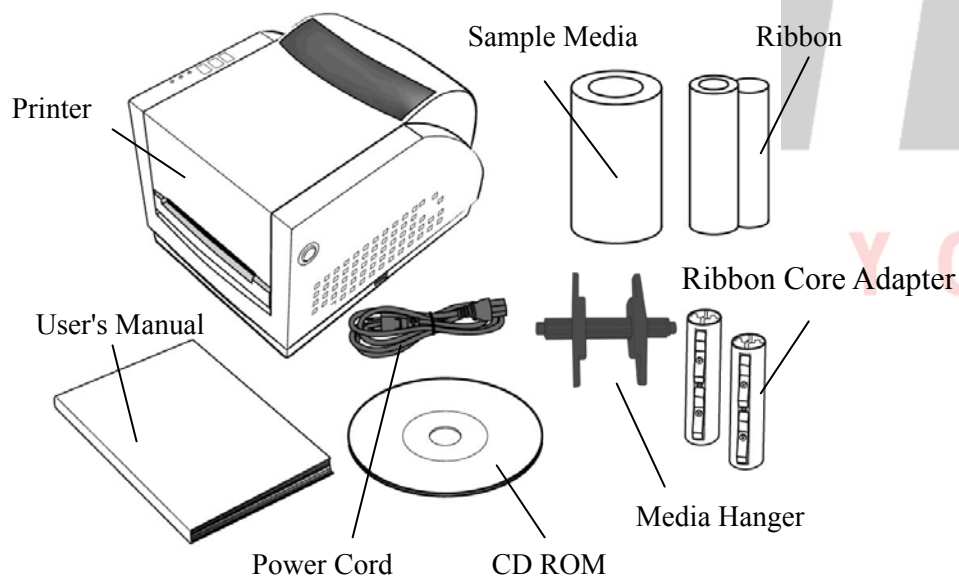
Power Cord   CD ROM

2. Power Supply

WARNING:
NEVER OPERATE THE PRINTER AND POWER SUPPLY IN AN AREA WHERE THEY CAN GET WET.

2.1   Leave the power switch at the " O " Position.

2.2   Connect the power supply plug to the power cord connecter and the other end to your AC source.

AC Electrical Outlet

Power Switch

Power Cord Connecter

Power Cord

3. Parts and Features

FEED
PAUSE
CANCEL

● READY
● MEDIA
● RIBBON

Top Cover

Power Switch

Cover Lock

Media Hanger

Release Levers

Ribbon Pick-up Holder

Thermal Printhead

Ribbon Supply Holder

Cover Lock

Platen

Roller

Power Switch
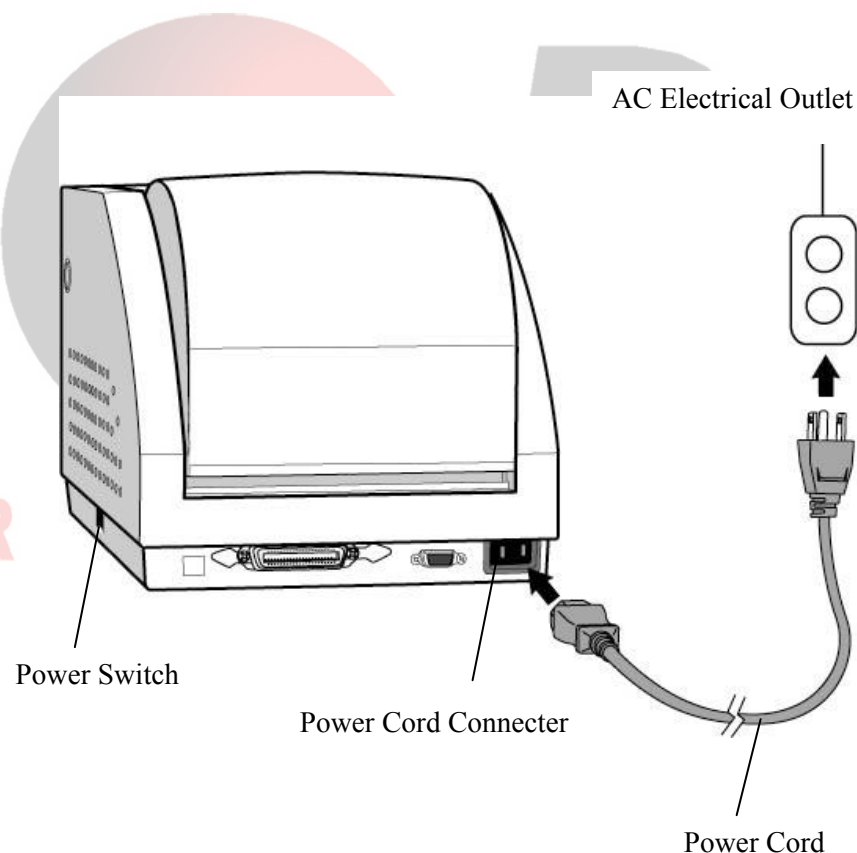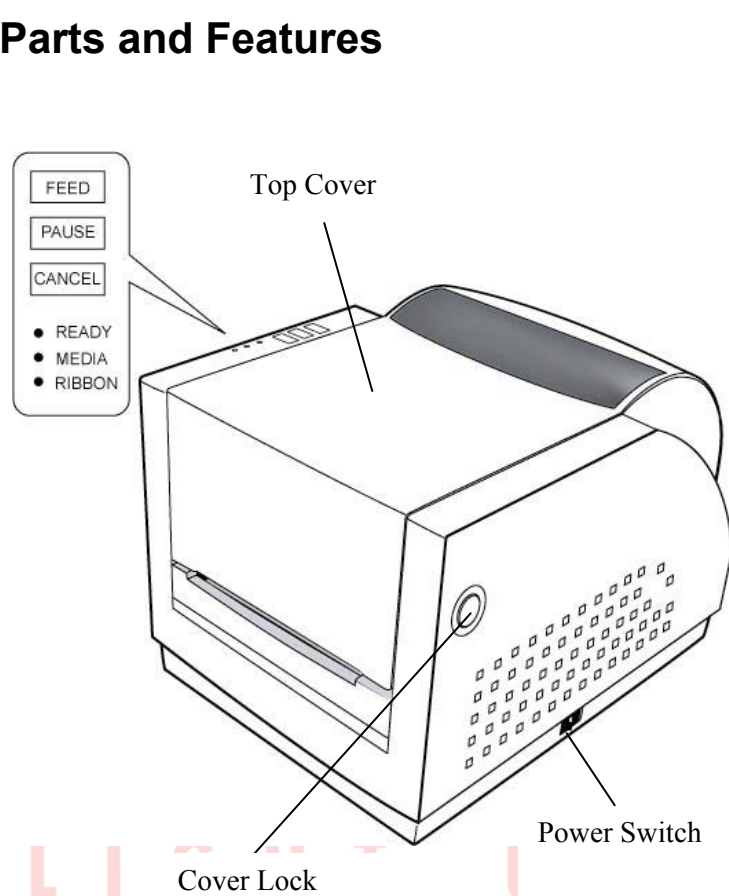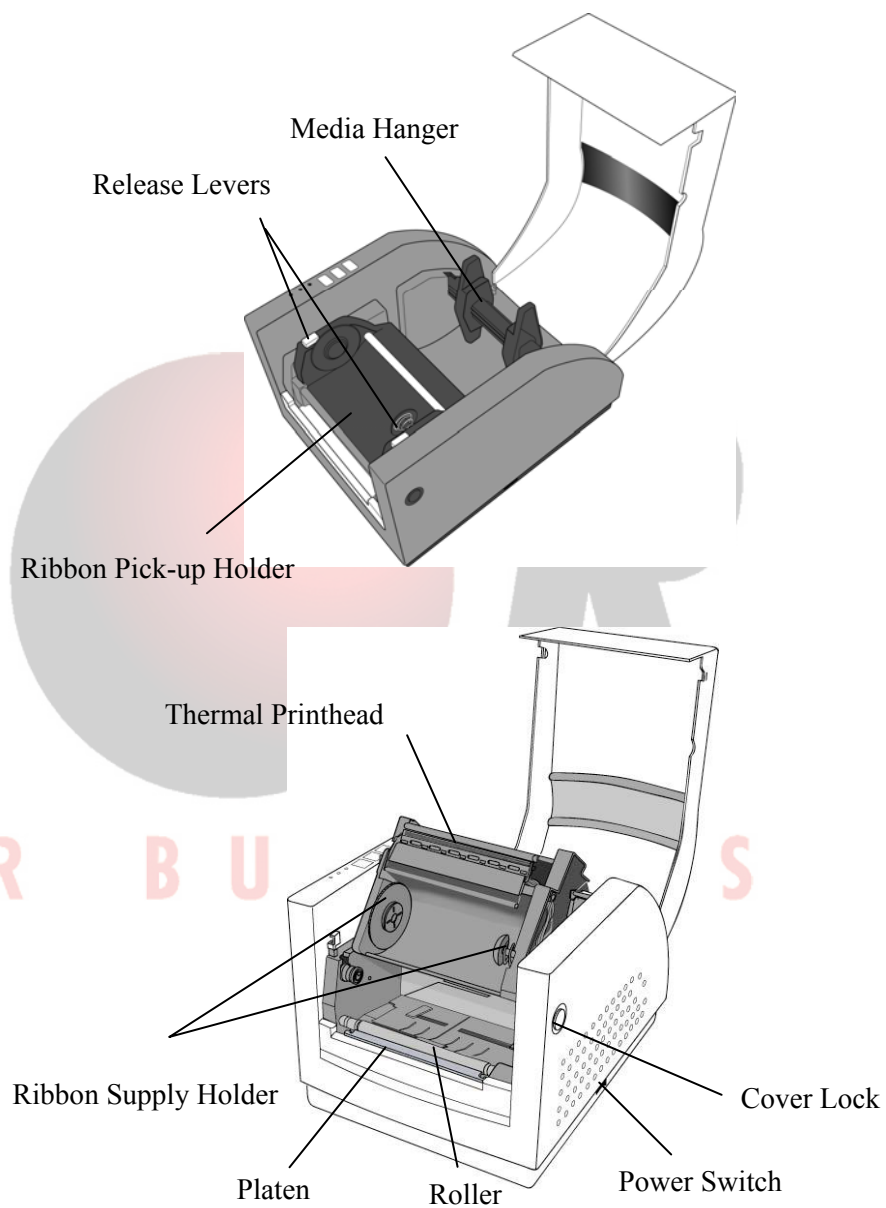
4. Loading the Ribbon

Note:
This section is not applicable to the direct thermal printing.

4.1   Press the cover locks on both sides to open the top cover

Cover Lock
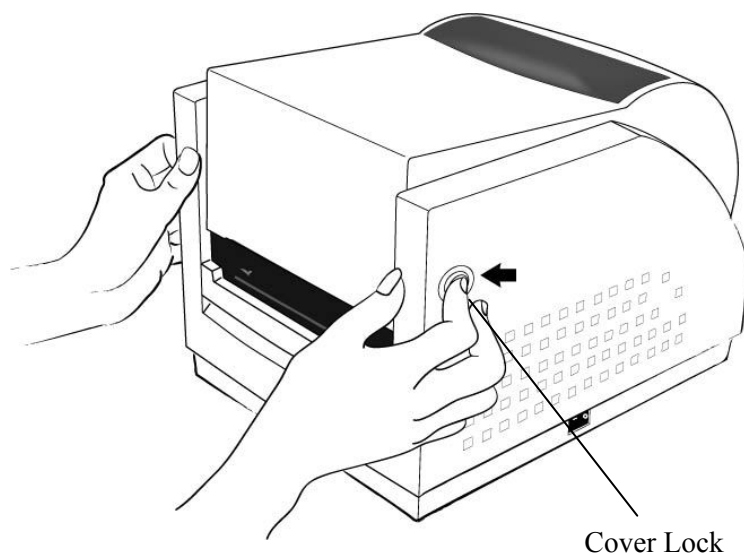
4.2   Unlatch the print head module by pushing the two green release levers on the sides toward the rear.

4.3   This allows print head module to rotate upward automatically and expose the ribbon supply holder.

Print Head Module

Release Lever

Ribbon Supply Holder
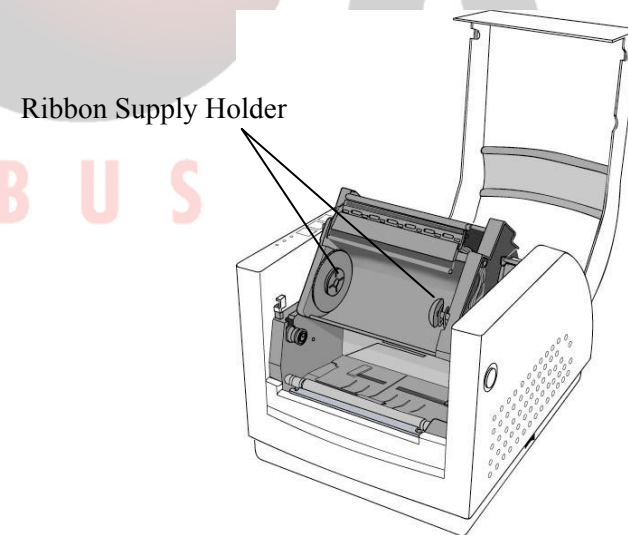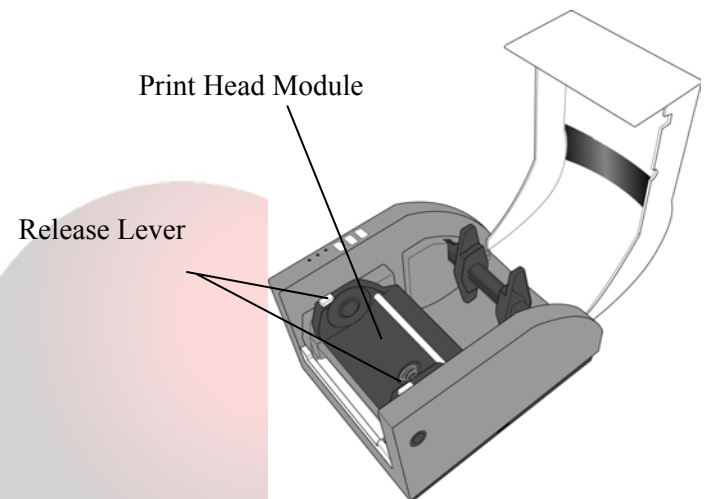
4.4 Unwrap the ribbon roll pack and separate the ribbon roll and the bare core.
4.5 Attach the edge of the ribbon on the bare core and wind it a little bit onto the core.
4.6 Insert the ribbon roll into the supply holder. (First snap in the right side and then the left side.)

Ribbon Roll

Bare Core

Noted:
It is the inside-coated ribbon used in the figure for R-400/R-400plus/R-600. For R-400K/R-400K plus models, please use outside-coated ribbon.

4.7 Turn back the print head module and then insert the bare core into the pick-up holder. (First snap in the right side, then the left side.)

4.8 Turn the wheel of the print head module to ensure the ribbon is tightly wound.

4.9 Press down the print head module firmly on both sides till you hear a snap.

Wheel

Print Head Module
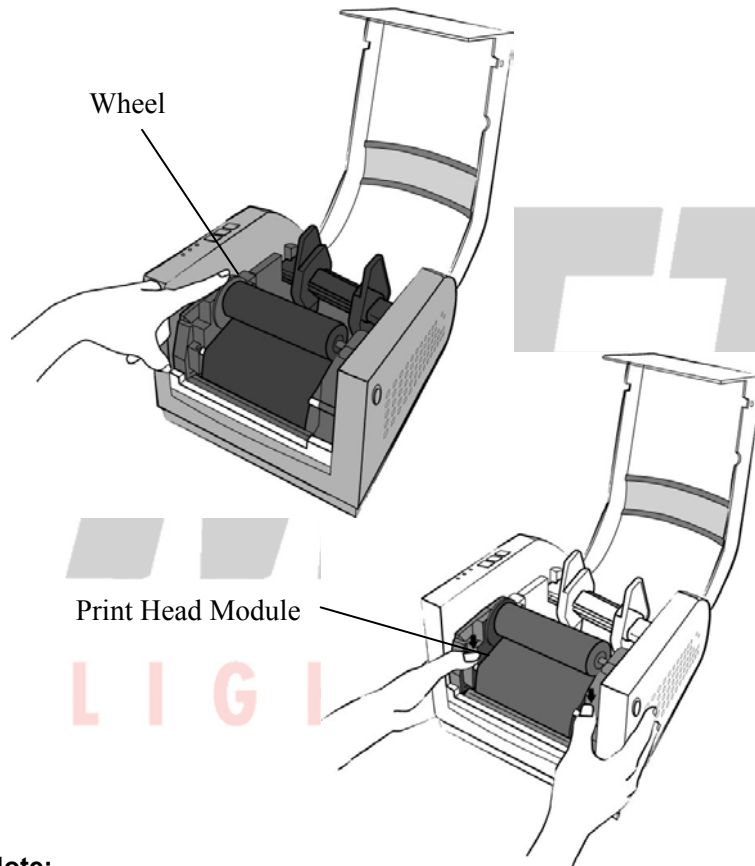
Note:
1. **R-400/R-600/R-400plus ribbons are face-in (inside coating). R-400K/R-400K plus ribbons are face-out (outside coating)**
2. **Optional ribbon core adapter is available once ribbon width is less than 4'' width.**

5. Loading the Media

R-Series printers can be operated in three different options: standard, peel-off, or with a cutter.

- Standard mode allows you to collect each label freely.
- In peel-off mode, the backing material is being peeled away from the label as it is printed. After the former label is removed, the next one will be printed.
- In cutter mode, the printer automatically cuts the label after it is printed.

5.1 **5.1 Standard Mode**

5.1.1 Press the cover locks on both sides to swing the top cover toward the rear and expose the media compartment.

5.1.2 Load the media roll onto the media hanger.

5.1.3 Put the media roll on the hanger holder.

Media Roll Media Hanger
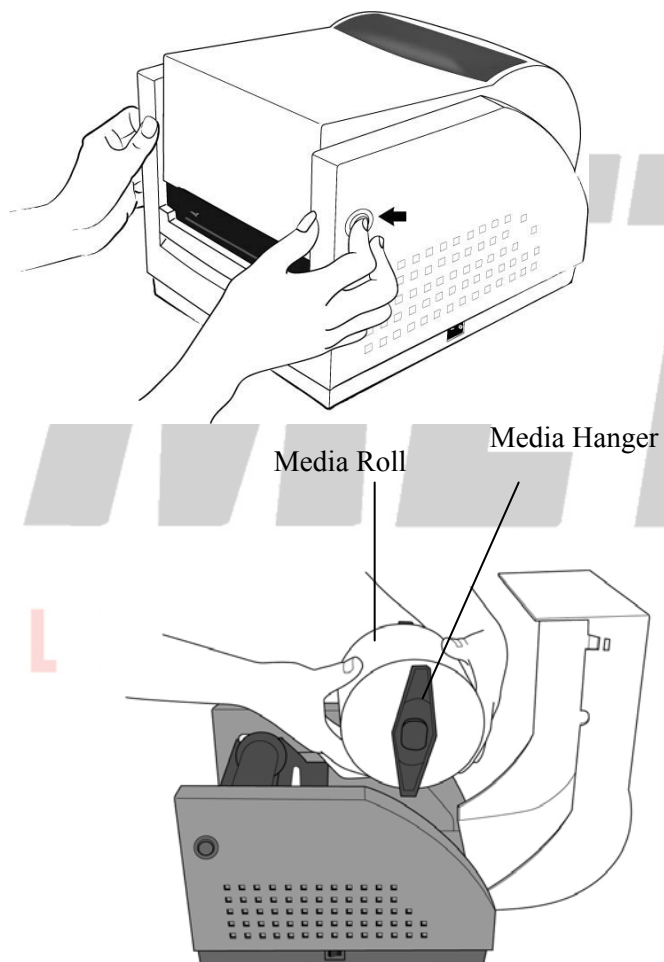
5.1.4 Unlatch the print head module.

5.1.5 Hold the print head module upright with one hand to allow the media pass under it. Lead the media through the media guides with the other hand. The media guides can be adjusted centrality to well fit with different label width.

5.1.6 Route the media through the media sensor for media detection.

5.1.7 Lead the media over the platen roller.

Sensor

Print Head Module

Media Guides

Platen Roller

Media Guides
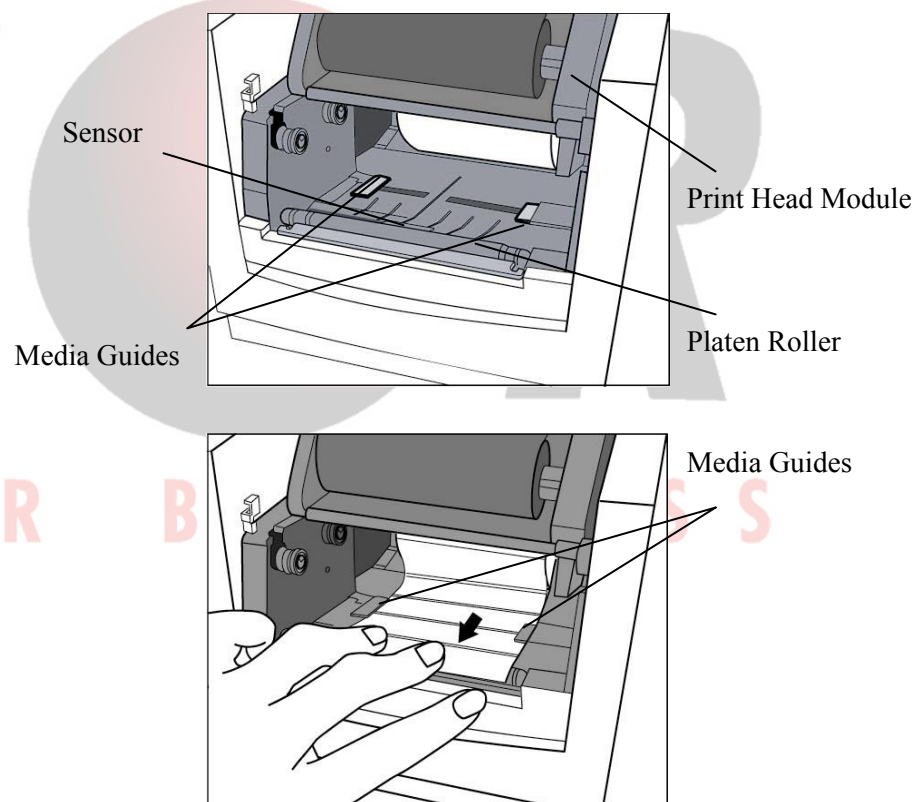
5.1.8 Turn back the print head module and then press it down firmly on both sides till you hear a snap.

Print Head Module
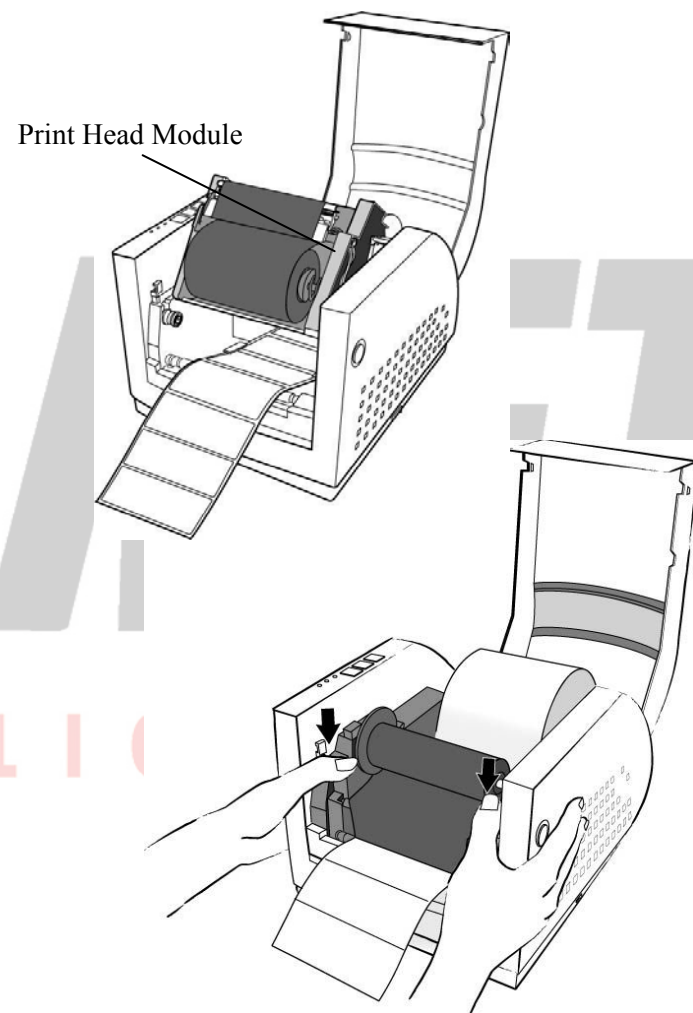
5.1.9 Close the top cover and turn on the printer or press feed button if the printer is already on.

Feed Button
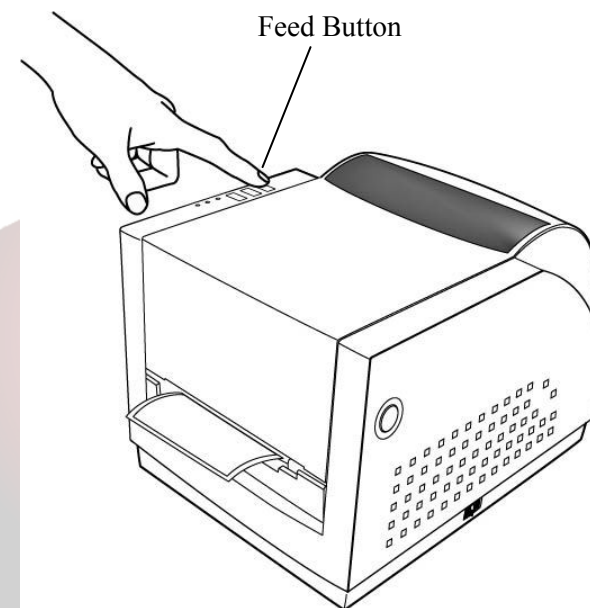
Note:
3" holder paper is available for 3" ID media roll.

5.2 Peel Off Mode

(Installing the dispenser kit, please refer to the Appendix C.)
Follow the common procedure of "Loading the Media "of Standard Mode from step 5.1.1 to step 5.1.9.

5.2.1 Remove approximate 6" long labels from the backing paper.
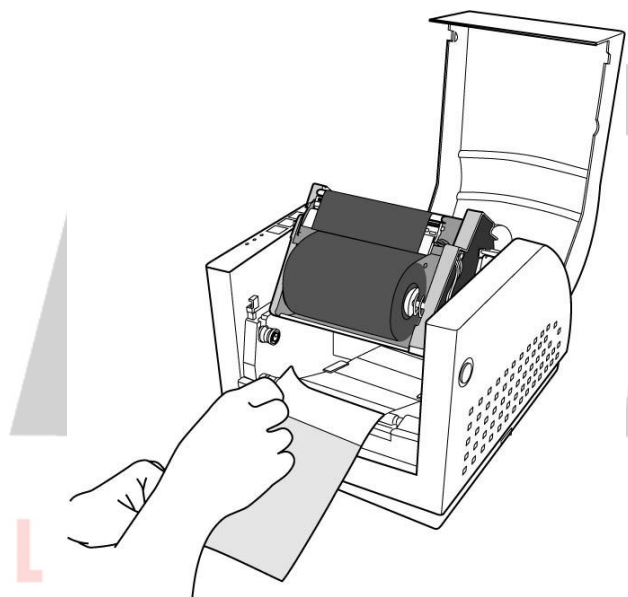
5.2.2 Trim the edge of label backing paper with scissors or knife.
5.2.3 Push down peeler-switch to ease the access packing paper.
5.2.4 Lead the backing paper over the plate, then thread it back into the slot, ensuring that it is inserted between white plastic roller and plate.
5.2.5 Pull back the peeler-switch to secure backing paper.

Peeler-Switch
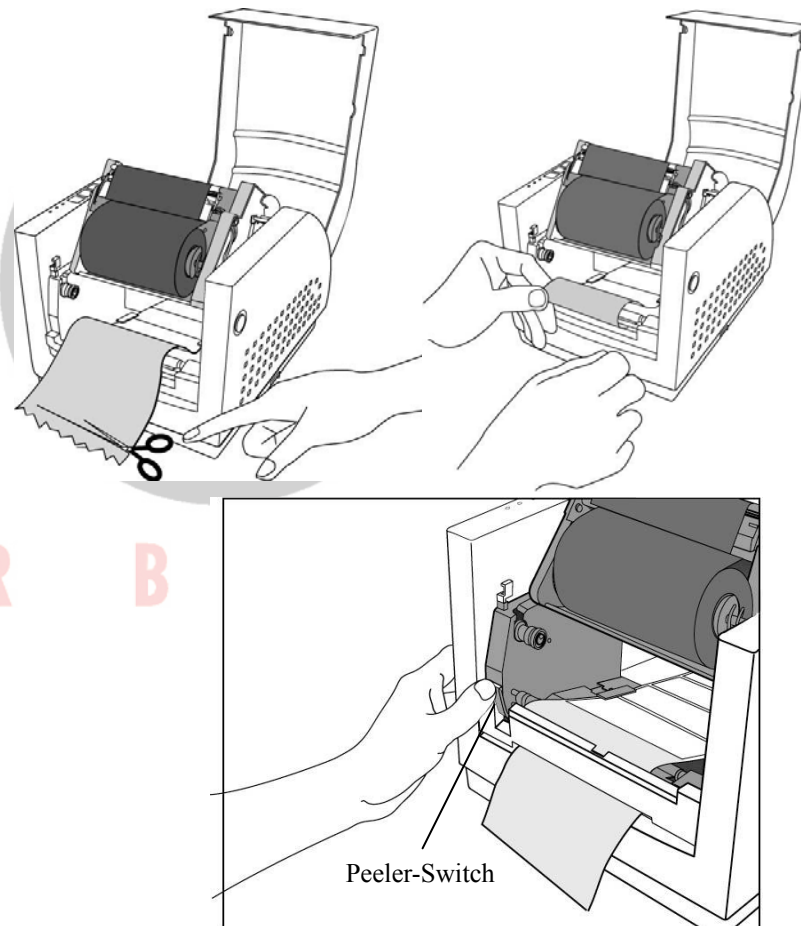
5.2.6 Latch print head module.

5.2.7 Turn on the printer and press feed button.

5.2.8 Labels will be separated from backing paper and fed out on H cover, while backing paper will come out from the slot under the H cover, and label will be fed out.

5.2.9 Close the top cover.

Feed Button

Label

Backing Paper
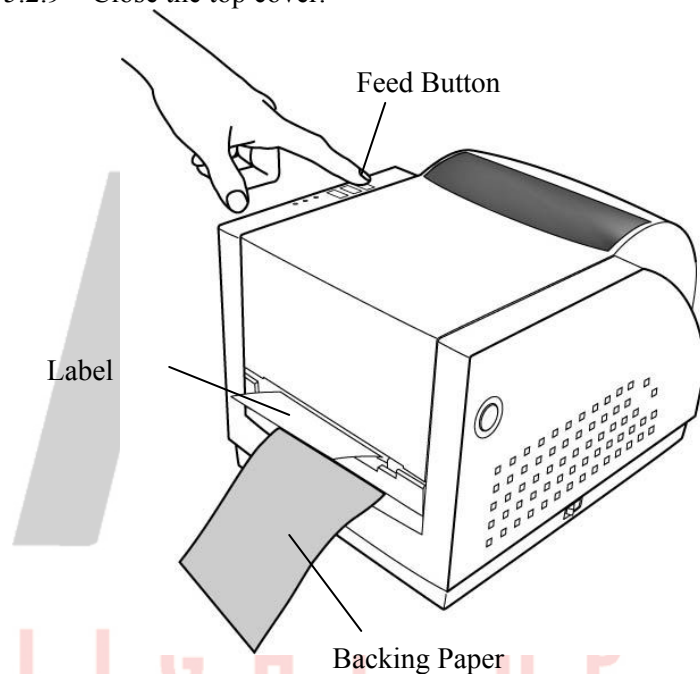
Note:
The "FEED" button will not drive the printer to peel. The peeling work can be executed only when the software setting is ready.

5.3 Cutter Mode

(Installing the cutter, please refer to Appendix D)
Follow the same procedure as "Loading the Media" from step 5.1.1 to step 5.1.9.

5.3.1 Mount cutter on print head module by fastening with two screws.

5.3.2 Thread the media over the platen roller, and then route the media through the slot of the cutter module.

Screw

Cutter

Screw
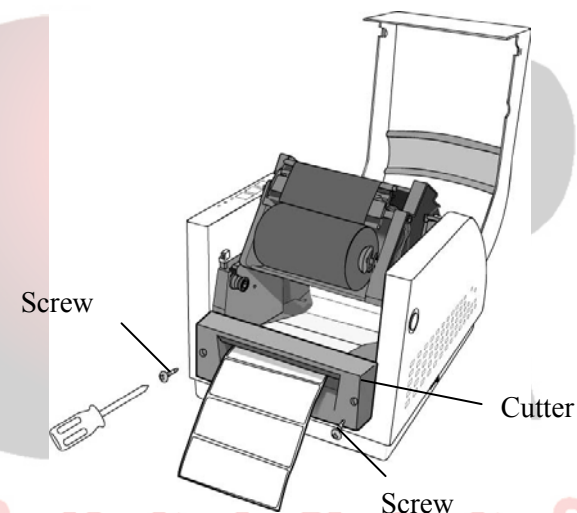
Note:
Cutter baby board must be installed prior to cutter installation.

5.3.3   Press down the print head module firmly.

Cutter
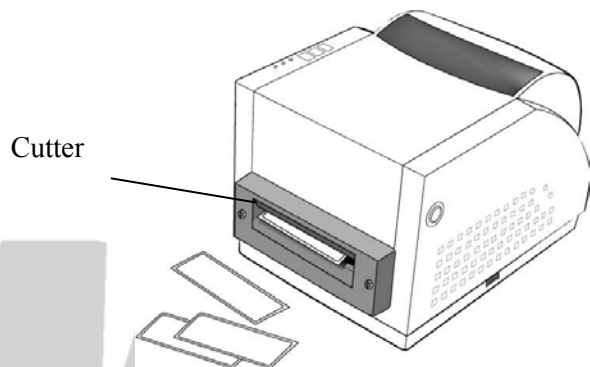
Note:
The "Feed" button will not drive the printer to cut.
The cutting work can be executed only when the software
setting is ready.

6. Operator Controls
6.1 Power Switch
Controls printer power
On-normal operation
Off-the power should be turned off before connect or disconnect
the communication cables and power cables

6.2 Buttons
There are three buttons, each has two basic functions.

BUTTON	Pressed at normal status	Pressed during power-on
FEED	Feed a label.	Perform a self-test for configuration report.
PAUSE	■ Stop the printing process. ■ Resume the printing job after press it again.	Perform the media calibration.
CANCEL	■ Interrupt and delete the printing job. ■ Force the printer to continue working after an error had been recovered.	Reset the settings at E^2PROM.

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6.3 LED Indicators

There are three LED indicators on the front panel, "READY", "MEDIA" and "RIBBON". These indicators display the operation status of the printer.

READY	The READY indicator will remain lighted except if any of the following conditions prevail. - Receiving data from host. - A fault condition.
MEDIA	The MEDIA indicator will remain on for the normal operation of the printer. - The printer is at PAUSE state. - Blinking – Media run out. (READY will be also blinking.)
RIBBON	ON – under thermal transfer mode with ribbon installed. OFF – under direct thermal mode. (No ribbon installed.) Set by Windows driver or command. Blinking – Ribbon run out. (READY will be also blinking.)

Notes:

1. **We suggest you make " media calibration ".**
    - for the first time media installation
    - after change different type or size of media

2. **After calibration, the printer will save the related parameters (reflection characteristics, label length, etc.) to E^{2}PROM. Without calibration, the incorrect media/Gap detection may occur, especially for small-size labels (less than 20mm in height).**

3. **Before calibration, the media and ribbon must be loaded properly and move the label sensor to correct position.**
4. **After self-test, the printer is at dump mode, If you need normal operation, you must press CANCEL to restart the printer.**
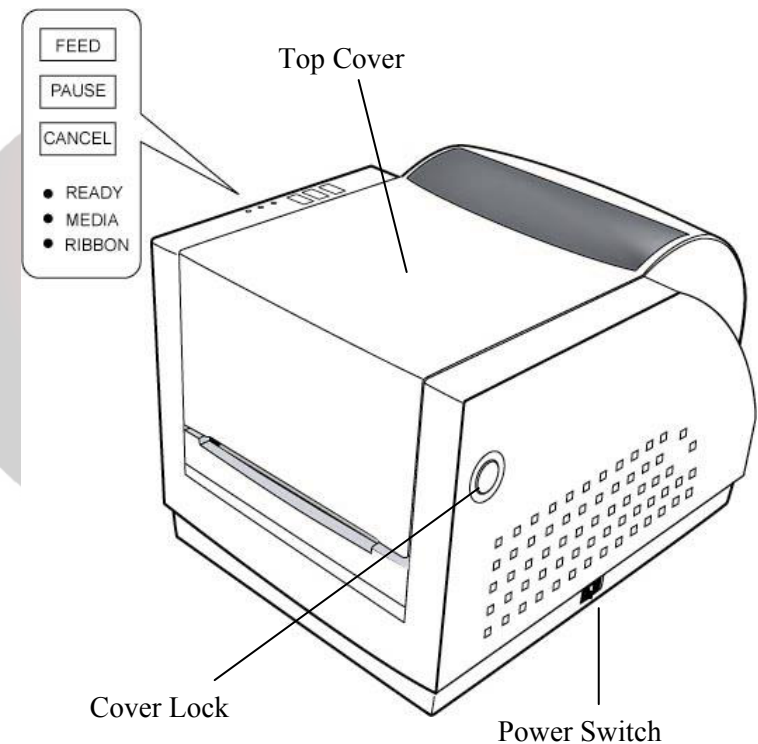
7. Performing Calibration

After the media loaded, it is necessary to do the calibration for the label size detection.

7.1   Press and hold the pause button.
7.2   Turn on the power.
7.3   Media indicators will blink, at this point release PAUSE button.
7.4   The printer will feed the labels for 6 inches.
7.5   Media indicators stop blinking and remain illuminated.

Note:
This procedure is very important and must always be carried out after installation and every time the media type is changed. Failure to do so will result in the gap and label-empty detection being incorrect.

8. Printing Configuration Report

8.1 Performing the Self Test

8.1.1   Turn off the printer. Press and hold the feed button.
8.1.2   Turn on the power.
8.1.3   Ready indicator blinks, release feed button.
8.1.4   The printer will print out a configuration report.
8.1.5   Ready indicator stops blinking and lights up.
8.1.6   The following information will be printed on this report.

```
Label Printer with Firmware PPLA R2A0-1.00 052302
RS232 : 2400, 8 DATA BITS. NONE PARITY, 1 STOP BIT
STANDARD RAM: 2097152 BYTES        USASCII
AVAILABLE RAM: 1054272 BYTES
THERMAL TRANSFER
LABEL COUNT: 13              1 M
FLASH MEMORY: ON BOARD
CHECKSUM: 0000
.AB LEN(TOP TO TOP): 38 mm.  304  0  8000  3000  0000  001F
MEDIA SENSOR LEVEL: 3             REFLCT. SENSOR

This is internal font 0. 0123456789 ABCabcXYZ
This is internal font 1. 0123456789 ABCabcXYZ
This is internal font 2. 0123456789 ABCabcXyz
THIS IS INTERNAL FONT 3. 0123456789 ABCABC
THIS IS INTERNAL FONT 4. 012345678
THIS IS INTERNAL FONT 5. 012345678
THIS IS INTRNL FONT 6
This is internal font 7. OCR-A ABCabc
0123456789
ASD Smooth font (6 points) - 0123456789 ABCabcXYZ
ASD Smooth font (8 points) - 0123456789 ABCabcXyz
ASD Smooth font (10 points) - 0123456789 ABCabcXyz
ASD Smooth font (12 points) - 0123456789 ABCa
ASD Smooth font (14 points) - 0123456789
ASD Smooth font (18 points) - 012

Courier Fonts:
  R8/E94/PC/PCA/PCB/LG/GK/RUS
```

Note:

1. After self-test the printer will enter character dump mode. For normal operation press the cancel button to exit from dump mode.

2. On the report:
   PPLA – Present emulation type
   R2A0-1.00 – Firmware version
   052302 – Date code
Please provide the above information to Argox support team in case your printer has a printing problem.

9. Resetting the Printer to Factory Default Settings

If you would like to reset the printer to its factory defaults after certain commands have been sent or settings changed:

9.1 Turn off the printer. Press and hold the CANCEL button.
9.2 Turn on the power.
9.3 Ribbon indicator blinks, release the button.
9.4 Ribbon indicator stops blinking and lights up.
9.5 The following parameters automatically reset.

   - Label parameters
   - Heat (Darkness)
   - Speed
   - Symbol set (language)
   - Others for specific emulation

Notes :

1. All settings stored in non-volatile E^{2}PROM cannot be destroyed even by turning the printer off.
2. It is necessary to perform label sensitivity calibration after resetting.
3. The printed label count can not be reset.

10. Hooking up the Printer & Computer

10.1 Connecting the Printer to Your Host

    10.1   You can connect the printer with any standard Centronics cable to the parallel port of the host computer.

    10.2   Alternatively you can connect the printer with a serial cable to the RS232C port of your computer or terminal. (for PC compatibles, the RS232C port is COM1, COM2 or COM3.)

Note :
Using Centronics allows for a much higher communication speed than the use of a serial.

Power Cord Connecter

Parallel Port

RS232 Serial Port
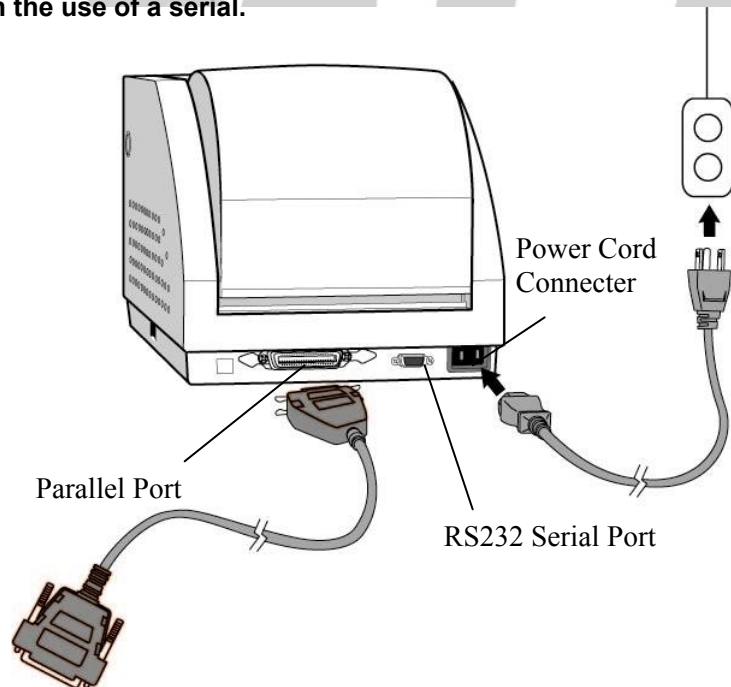
11. Communicate with the Printer

The bundled printer driver can be applied to all the applications under Windows XP/2000/98/95, and Windows NT. Through this driver you may run any popular software applications such as MS-Word and print to this printer.

11.1 Before installation

    11.1.1   Check the contents of the driver to ensure it is complete.

    11.1.2   Make a backup copy of the driver.

11.2 Installing Driver

1. Double click the driver file (Label Dr. 200 or Label Dr. 300) to execute in Windows.
2. Click "Next".

Welcome

Welcome to the AutoInstall Wizard for Printer Driver.

The Wizard will install Printer Driver on your computer.

To continue, click Next.

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< Back   Next >   Cancel
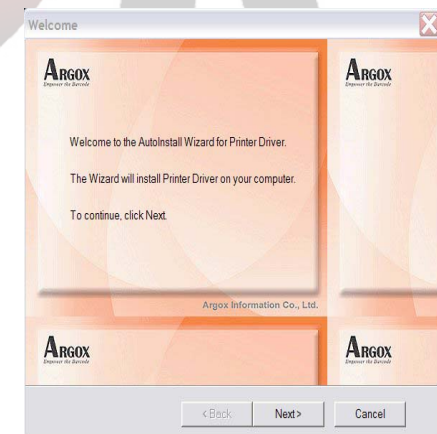
3. Select a driver for your printer and click "Next". For 203 dpi modes with 4 inches print width, you should select Label Dr.200 (4 inch model).

Select Model

Select the model of your printer.

Label Dr 200 (2 inch model)
Label Dr 200 (3 inch model)
Label Dr 200 (4 inch model)
Label Dr 200 (6 inch model)

Printer Driver for 2 inches width label printer

< Back   Next >   Cancel
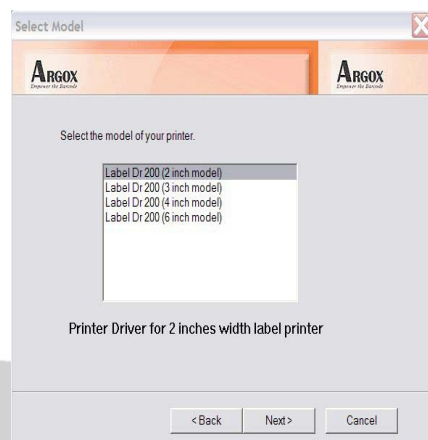
4. Select the port of the printer and click "Next".

Setup

Select the port you want your printer to use.

COM9:
Desktop*.pdf
FILE:
IP_19.168.0.251
IP_192.168.0.217
IP_192.168.0.251
IP_192.168.0.252
IP_192.168.1.217
LPT_Sato
LPT1:
LPT2:

< Back   Next >   Cancel
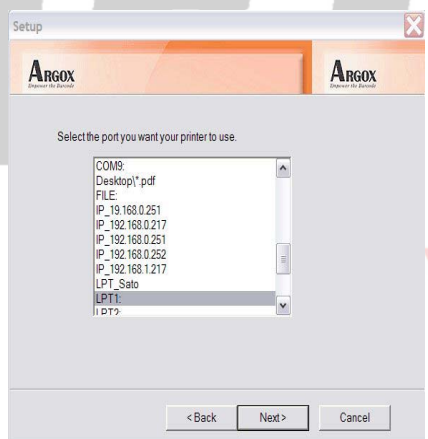
5. After the related files are copied to your system, click "Next".

Setup

Extract Files ... (need several minutes)

< Back   Next >   Cancel

6. After the installation is complete, click "Finish".

Finish Page

Setup has finished installing Printer Driver on your computer.

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< Back   Finish   Cancel
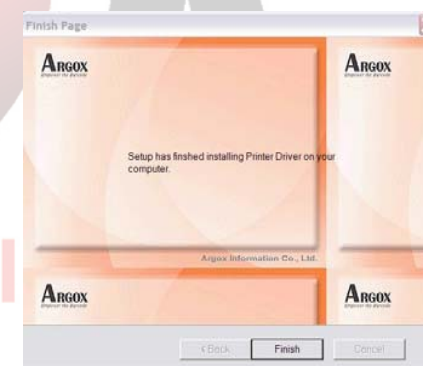
Note:

1. **If you are updating the driver, previous driver files are overwritten automatically.**
2. **If you install new bar code application software such as ArgoBar, LabelView or CodeSoft, you may activate the Label Dr. 200 (or Label Dr. 300) driver and set it as the current printer driver:**
3. **If you install new bar code application software such as Bartender Ultra Lite, you should activate the seagull driver for Argox printer.**

•*ArgoBar*
 File → New → Select Printer → Label Dr. on LPT1 → OK

•*LabelView*
 File → Select Printer → Label Dr. on LPT1: → OK

•*CodeSoft*
 File → Printer → Windows → Label Dr. on LPT1: → OK

•*LabelMatrix*
 File → Printer Setup → Label Dr. on LPT1: → OK

·*Nicelabel*
 File→ Printer Setup →Label Dr. on LPT1: → OK

·*Bartender*
 File→ Printer Setup →Label Dr. on LPT1: → OK

11.3 Installing the USB Driver (Plug and Play)

Note:

 The printer driver needs to install version 1.4.00 or later and support "USB Plug and Play" for Windows XP, Windows 2003 and Windosw 2000.

1. Extract the PrinterDriver.exe to the fixed route. ("C:\Label Dr. 200", for example)
2. Connect the label printer to a computer with a USB cable.
3. Turn on the printer's power and the system detects the device automatically.
4. Select "Install from a list or specific location (Advanced)", click "Next".

5. Select "Search for the best driver in these locations" and choose "Include this location in the search". Input the location of printer driver, click "Next".
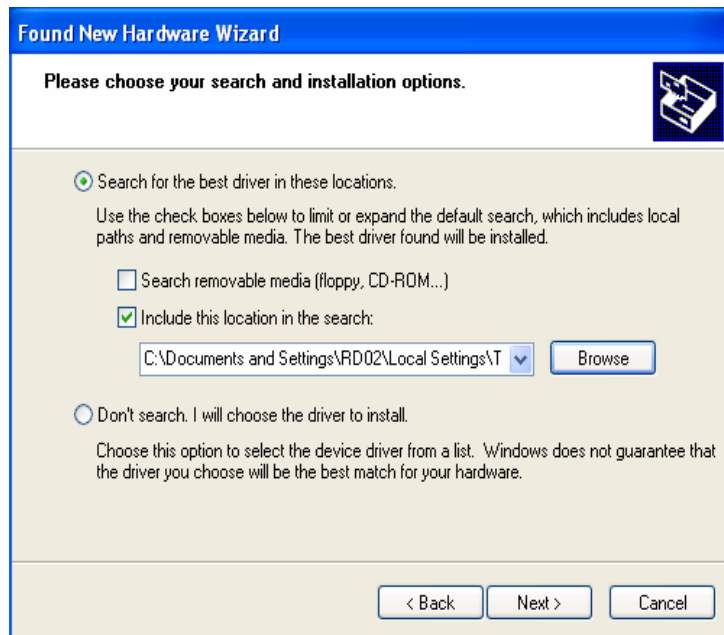
6. Select "Continue Anyway".
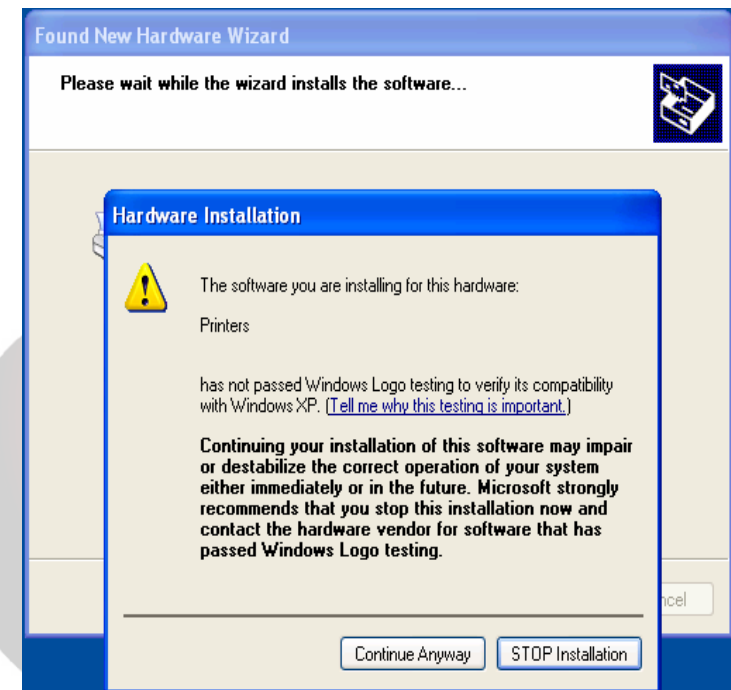
7. Click "Finish".

8. The Label Dr200 (4 inch model) printer is added in "Printers and Faxes".

9. Reboot the system.

10. The system assigns the USB port for Label Dr200 (4 inch model) printer

11.4 Setting Parameters

After installing the driver, follow the path below to set parameters:

Start → Settings→ Printers→ Label Dr.→ Properties

Parameters include:

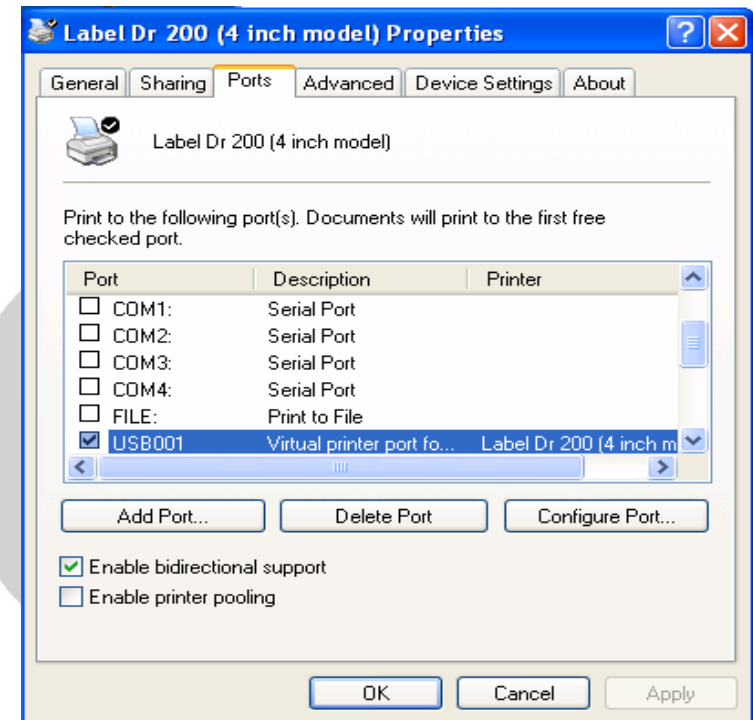|	
Ports	Select the IO port to link with the printer. The port may be USB, parallel (LPT), serial (COM), network port, or file.
Paper size	Select the proper size. If there is no desired size, select "Custom" to define paper size.
Orientation	Set portrait or landscape.
Paper source (Media type)	T/T stands for thermal transfer (ribbon) mode and D/T for direct thermal mode (without ribbon).
Media choice (Darkness)	Set the heat value or darkness from this field. Darkness values range from 0 to 15.
Copies	This function designates the number of printed copies of each page.
More options (Accessories)	To use the cutter or peeler function, enter More Options and select one of the items.
Device options (Speed)	Set print speed. For the OS-214 plus, the speed ranges from 1~ 3 ips.

11.4.1 Parameters for Win 98

Ports

In the Properties menu:
→ Click "Details"
→ Select the IO port.
→ Click "OK"
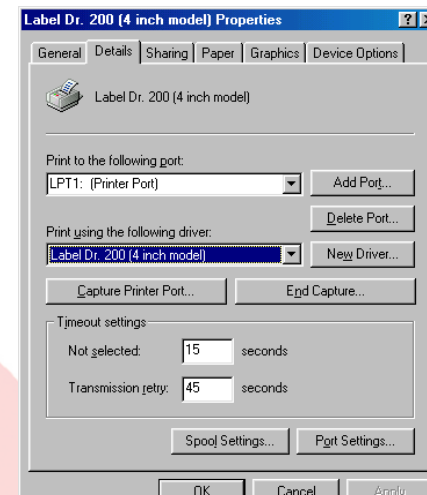
Paper size
Orientation
Paper source
    (Media type)
Media choice
    (Darkness)
Copies

In the Properties menu:
→Click "Paper"
→Click items to select the desired parameters
→Click "OK"
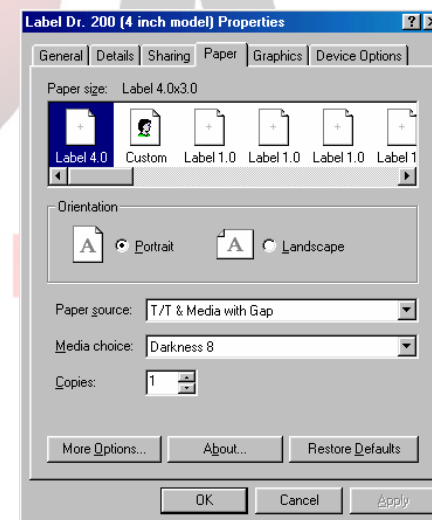
Output bin
     (Accessory setting)

In the Properties menu:
→ Click "Paper"
→ Click "More Options"
→ Select Enable w/o
cutter, peeler
→ Click "OK"

Create a custom size

In the Properties menu:
→ Click "Paper"
→ Select "Custom"
→ User-Defined Size
→ Set a custom size
→ Click "OK"
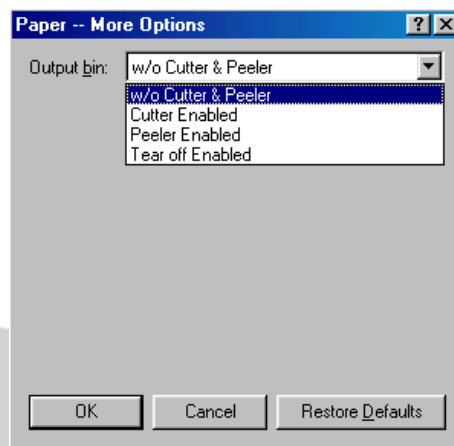
Print quality
     (Speed)

In the Properties menu:
→ Click "Device Options"
→ Select parameters
→ Click "OK"
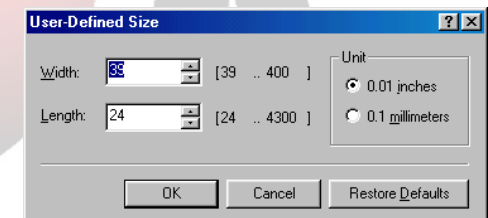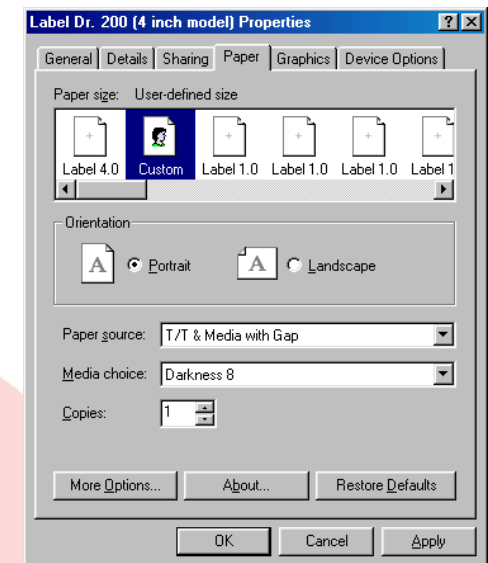
11.4.2 Parameters for Win 2000

Ports

In the Properties menu:
→ Click "Ports"
→ Select the IO port
→ Click "OK"
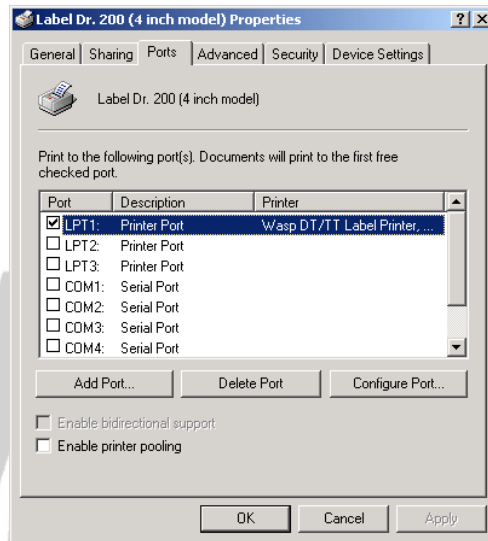
Paper source
    (Media type)

In the Printers menu:
→ Right click
→ Select "Printing Preferences"
→ Click "Paper/Quality" and select media type
→ Click "OK"
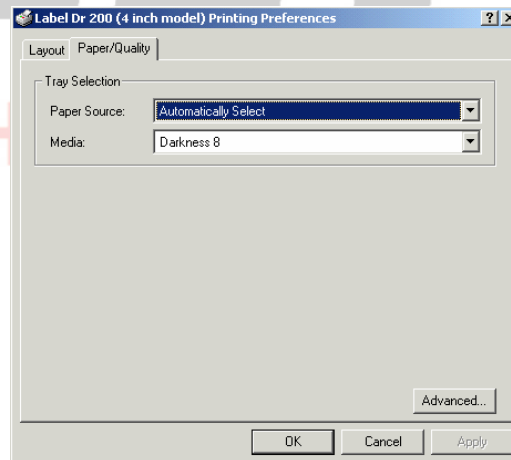
Orientation
Page order

In Printing Preferences:
→ Click "Layout"
→ Select "Portrait" or "Landscape"
→ Click "Page order""
→ Select "Front to Back" or "Back to Front"
→ Click "OK"
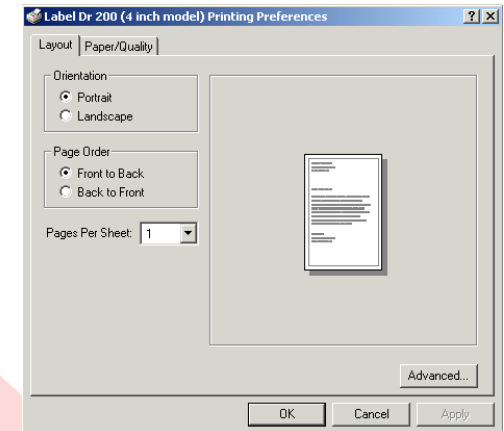
Paper size
Copies
Print quality
    (Speed)
Output bin
    (Accessory setting)

In Printing Preferences:
→ Click "Layout"
→ Click "Advanced"
→ Click each item to select parameters
→ Click "OK"
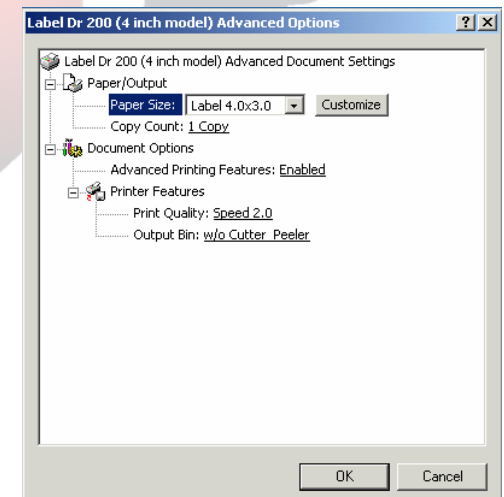
Paper size setup

In Printing Preferences:
→ Click tag "Layout"
→ Click button "Advanced"
→ Click "button Customize""
→ Select "paper size" or
add new paper size.
→ Click "OK"
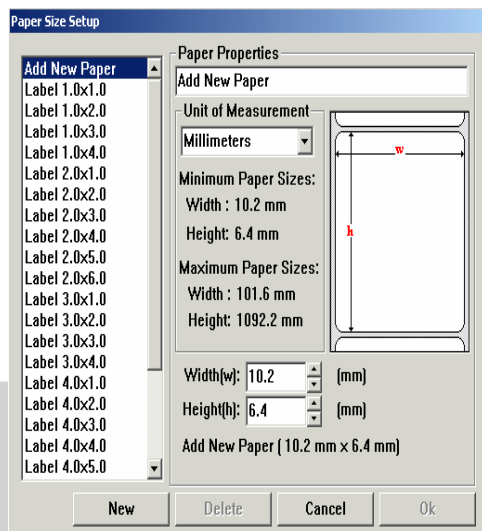
Create a custom size

In the Printers menu:
→ Right click
→ Select "Server
Properties"
→ Enter a form name for
in "Form Description for"
→ Reset paper size in
"Measurements"
→ Click "OK"

11.4.3 For NT 4.0

Ports

In the Properties menu:
→ Click "Ports"
→ Select IO port
→ Click "OK"
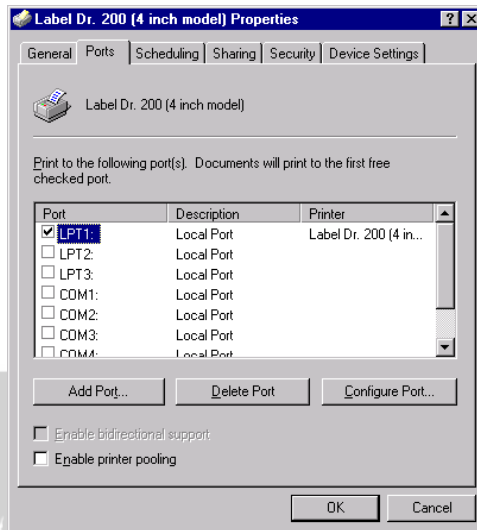
Paper size
Orientation
Paper source
    (Media type)
Copies
Media choice
    (Accessory setting)

In the Printer's menu:
→ Right click
→ Select "Document Defaults"
→ Click "Advanced"
→ Click items to select desired parameters
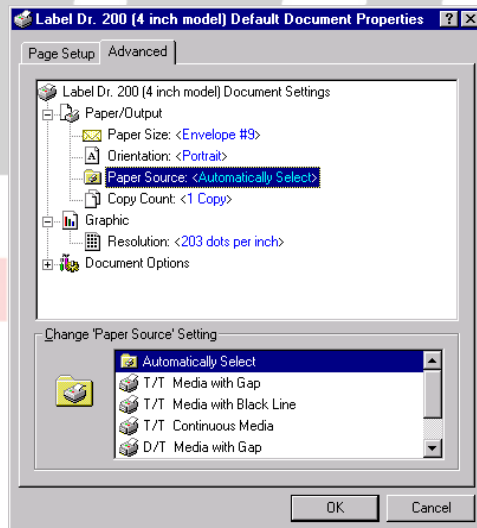
Paper/Output
    (Speed)
Print quality
    (Darkness)

In Default Document:
→ Click "Advanced"
→ Click item to select desired parameters
→ Click "OK"
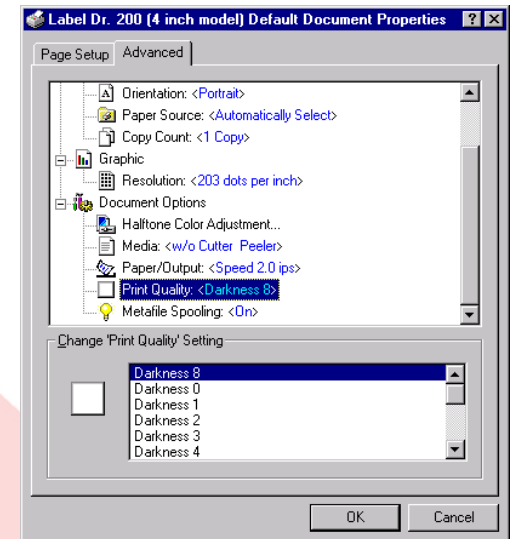
Create a custom size

Please refer to **Create a custom size** in Win 2000 above.

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11.4.4 For Win XP

**Ports**

In the Properties menu:
→ Click "Ports"
→ Select the IO port
→ Click "OK"
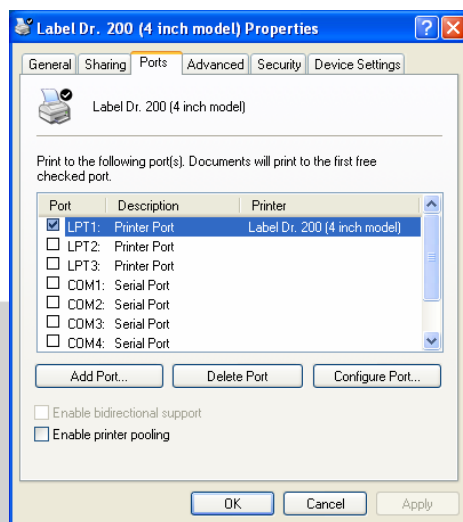
Paper source
   (Media type)

In the Printers menu:
→ Label Dr
→ Right click
→ Select "Printing Preferences"
→ Click "Paper Quality"
→ Select media type
→ Click "OK"
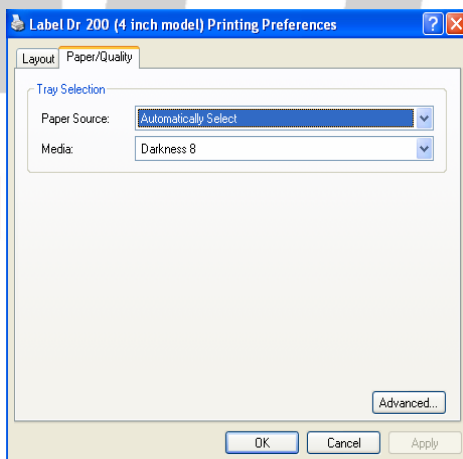
Orientation
Page order

In Printing Preferences:
→ Click "Layout"
→ Select "Portrait" or "Landscape"
→ Click "Page order""
→ Select "Front to Back" or "Back to Front"
→ Click "OK"
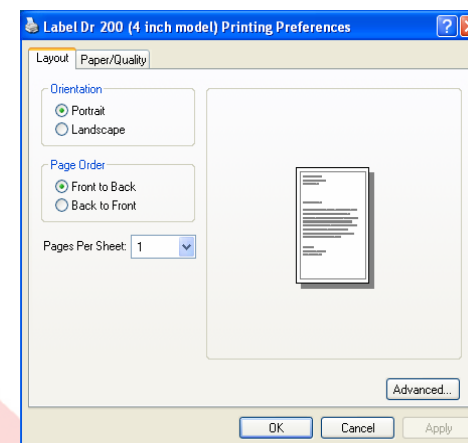
Paper size
Copies
**Print quality**
   (Speed)
Output bin
(Accessory setting)

In Printing Preferences:
→ Click "Layout"
→ Click "Advanced"
→ Click items to select parameters
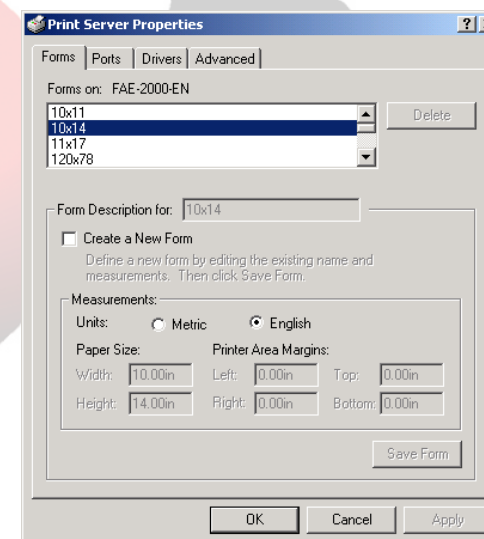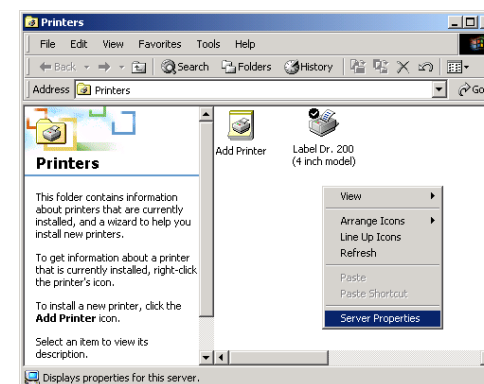→ Click "OK"
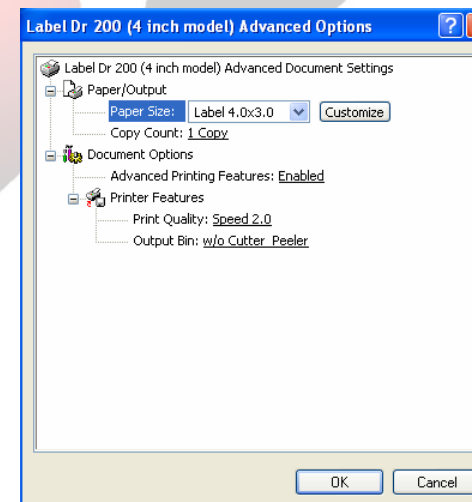
Paper size setup

In Printing Preferences:
→ Click tag "Layout"
→ Click button "Advanced"
→ Click button "Customize""
→ Select "paper size" or
Add new paper size.
→ Click "OK"
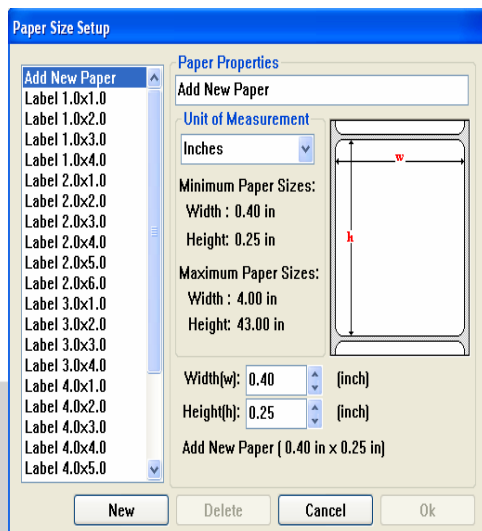
Create a custom size

In the Printers menu:
→ Right click
→ Select "Server Properties"
→ Enter a "Form name"
→ Reset paper size
in the "Form description"
→ Click "OK"

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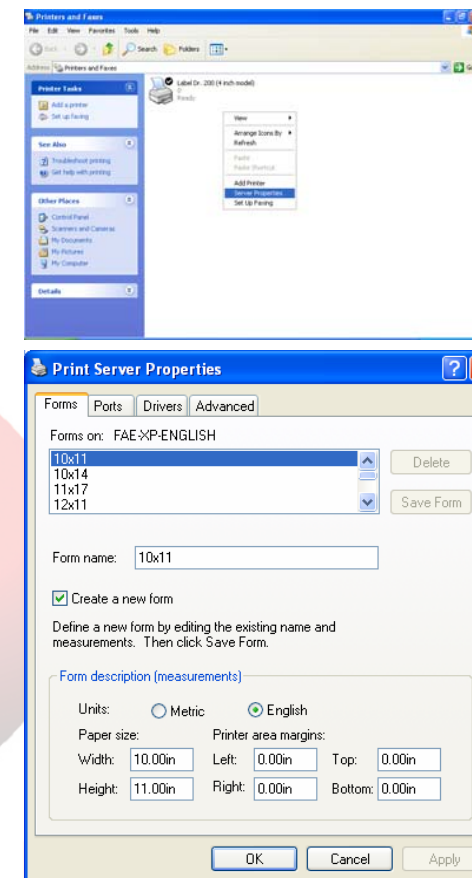
12. Troubleshooting

Generally, when a malfunction or an abnormal condition occurs, the "READY" LED will keep blinking and printing and communication between the host and printer will stop.

To understand what the problem, please check the LEDs.

12.1 Problems on media

Possible Problems	Solutions	Remarks
Missing gap	. Check the media path. . Check the position of label sensor.	If you use continuous media, check your application software and driver. You should select continuous.
Media out	. Supply the media roll.	
Media not installed	. Install the media roll.	
Media jam	. Recover the jam.	

If everything is Okay try to mark the label sensor calibration (please see page 25)

12.2 Problems on ribbon

Possible Problems	Solutions	Remarks
Ribbon has run out	Supply the ribbon roll.	Does not apply to direct thermal. If you use direct thermal, set bit 1 of DIP switch to OFF.
Ribbon jam	Recover the jam.	not for direct thermal.
Ribbon sensor error	Replace the ribbon sensor.	not for direct thermal.

12.3 Miscellaneous

12.3.1 The host shows "Printer Time out".
   1. Is the communication cable (parallel or serial) connected securely to your parallel or serial port on the PC and to the connector on the printer ?
   2. Is the printer power turned on ?
      If the power cord is connected, the power switch is at position 'I' and the power LED is still not illuminated, call for service.

12.3.2 The data has been sent, but there is no output from the printer. Check the active printer driver, it should be Label Dr. for your Windows system and the label printer..Check the emulation and the print (command) file.

12.3.3 Vertical streaks in the printout usually indicate a dirty
or faulty print head.   Clean the print head first, if
they still persist, replace the print head.
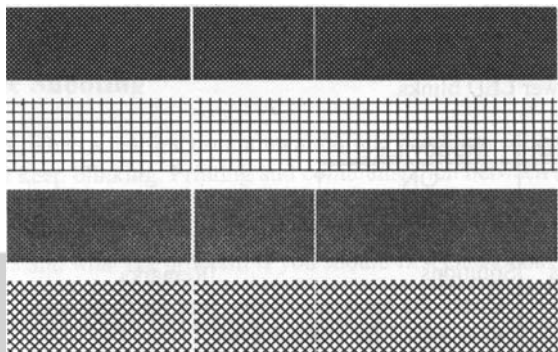
12.3.4 Unstable ribbon roll rotation.
Check the label path and make sure the head latch is
securely closed.
12.3.5 Poor printout quality.
. The ribbon may be not qualified.
. The media may be not qualified.
. Adjust the Darkness (heat temperature).
. Slow down the print speed.
. Refer to the following paragraphs and clear the
related modules.

12.4 Recovery

In order to continue your print jobs after any abnormal
conditions have been recovered, simply press the CANCEL
button or restart the printer. Make sure that the LED indicator
is illuminated and not blinking and remember to resend your
files.

13. Caring for your Printer

Before maintenance be sure to turn off the printer power.

13.1 Cleaning the print head (TPH)

Turn off the printer, open the cover, print head module and
remove the ribbon. Rub the print head with a piece of cotton,
which has been moistened with alcohol. Check for any traces
of black coloring or adhesive on the cotton after cleaning.
Repeat if necessary until the cotton is clean after it is passed
over the head.

Note:
**The print head should be cleaned at least every time the
ribbon is replaced and more often depending on actual
usage and conditions.**

13.2 Cleaning the roller

Using a cotton moistened with alcohol, clean the roll and rip
off the attached glue.

Note :
**The roller should be cleaned whenever it has been in
contact with foreign materials such as dust or adhesives.**

13.3 Cleaning the media compartment
Clean the media compartment with cotton, which has been
moistened with a mild detergent.   Every time a media roll is
printed this compartment should be cleaned to reduce the
incidence dust.

14. Reference Technical Information

14.1 General Specifications

Specifications	R-400Zip	R-400plus	R-400	R-600
Printing method	Direct thermal & Thermal Transfer			
Printing resolution	203 dpi			300 dpi
Printing speed (ips)	2 ~ 6			2 ~ 4
Printing length (in.)	0.4 ~ 43			0.4 ~ 30
Printing width (inch)	Max 4.25			Max 4.16
Memory (DRAM/FROM)	2MB/ 2MB		2MB/ 1MB	2MB/ 1MB
CPU type	32 bit			
RISC microprocessor				
Media sensor	Reflective (Movable)			
Display	LED indicators x 3			
Operation interface	Button x 3			
Communication interface	Parallel, RS-232, USB		Parallel, RS-232	
Fonts	See details in 14.2.3		Int'l character sets standard 5 alpha-numeric fonts from .049"~.23"H (1.25mm ~ 6.0mm) Fonts are expandable to 24x24 4 direction 0°~270° rotation Soft fonts are downloadable	
2D Barcodes	See 14.2.3		Maxicode, PDF-417, Data Matrix (ECC-200 only)	
Graphic	See 14.2.3		PCX bit map, GDI graphics	
Software	PPLZ	PPLA/B/Z	PPLA/B	
	Windows Driver (Win 98/2000/NT/XP) Label editing software – ArgoBar, Printer Utility			

Media	Roll-feed, die-cut, continuous, fan-fold, tags, ticket in thermal paper or plain paper and fabric label Max width 4.3" (110 mm) Min width 1" (15 mm) Thickness .0025"~. 01" (.0635mm ~. 254mm) Max roll capacity 6" (OD 152 mm) Core size 1"~1.5" (25mm ~ 37mm) (Core sized 3" ID can by applied by installing with extra media core adapter)
Ribbon	Wax, Wax/Resin, Resin (inside costing) Ribbon width – 2", 4" Ribbon roll – max 2.67" (OD 68 mm) Ribbon length – Max 360m Core size - ID 1" core (25 mm)
Mechanism request	Built-in Tear off bar, front-open cover, clear window, fan fold paper back cover, face-in ribbon run way, un-adjustable TPH carrier.
Dimension	W 314 x H 231 x L 218 mm
Weight	9.3 lbs
Power source	Internal Power Switch (90~250VAC)
Agency listing	CE, UL, CUL, FCC class A, CCC
Operation environment	40ºF ~ 100ºF (4ºC~38ºC) 10~90% non condensing
Optional items	Cutter, Dispenser kit, Real time clock card (PPLA/B only), ArgoNet print server, USB (R-400 Zip and R-400plus only), Asian font card

Note:
 R-400 /R-400plus/ R-600 are used with inside coating ribbons.
 R-400K/ R-400K plus are used with outside coating ribbons.
Other specifications are same as R-400.

14.2 Fonts, Bar Codes and Graphics Specification

The specifications of fonts, bar codes and graphics depend on the printer emulation. The emulation is a printer programming language, through which the host can communicate with your printer. There are printer PPLA / PPLB programming languages for R-series.

14.2.1 Printer Programming Language A, PPLA

Specification	Model R-400/R-400plus	Model R-600
General fonts	7 alpha-numeric fonts, OCR A and OCR B	
ASD smooth fonts	4, 6, 8, 10, 12, 14, and 18 points	
Symbol sets for smooth fonts	USASCII, UK, German, French, Italian, Spanish, Swedish, and Danish/Norwegian	
Courier fonts	8 symbol sets (PC, PC-A, PC-B, EAMA-94, Roman , Legal, Greek and Russian)	✕
Soft fonts	Downloadable PCL fonts	
Font expandability	1x1 to 24x24	
Bar code types	Code 39, Code 93, Code 128/subset A,B,C, Codabar, Interleave 2 of 5, UPC A/E/2 and 5 add-on, EAN-8/13, UCC/EAN-128, Postnet, Plessey, HBIC, Telepen and FIM. MaxiCode PDF417 and DataMatrix (ECC-200 only).	
Graphics	PCX, BMP, IMG and HEX formats	
Stand-alone operation without host	ArgoKee or scanners	

14.2.2 Printer Programming Language B, PPLB

Specification	R-400/ R-400plus / R-600
General fonts	5 fonts with different point sizes
Symbol sets (Code pages)	8 bits: code page 437, 850, 852, 860, 863 and 865. 7 bits: USA, British, German, French, Danish, Italian, Spanish, Swedish and Swiss.
Soft fonts	Downloadable soft fonts
Font expandability	1x1 to 24x24
Bar code types	Code 39 (checksum), Code 93, Code 128/subset A,B,C, Codabar, Interleave 2 of 5(checksum), Matrix 25, UPC A/E 2 and 5 add-on, EAN-8/13, Code 128UCC, UCC/EAN, Postnet, German Postcode. MaxiCode and PDF417 (2D symbologies).
Graphics	PCX and binary raster
Stand-alone operation without host	Connected with ArgoKee or scanners

14.2.3 Printer Programming Language Z, PPLZ

Specification	Model R-400 Zip/R-400plus
General fonts	9 alpha-numeric bitmapped fonts and 1 scaleable font (CG Triumvirate Bold Condensed)
Symbol sets	Scaleable font: PC 850 Bitmapped font: USA, UK, Holland, Germany, France, Denmark/Norway, Italy, Span, Sweden/Finland, Japan and miscellaneous

Soft fonts	Downloadable soft fonts
Font expandability	2 to 10 times
Bar code types	Code 39 (checksum), Code 93, Code 128/subset A,B,C, Codabar, Interleave 2 of 5 (checksum), Industrial 2 of 5, Standard 2 of 5, UPC A/E 2 and 5 add-on, EAN-8/13, Postnet, Code 11, logmars, MSI code MaxiCode and PDF417, QR code (2D symbologies).
Graphics	Bitmap graphic can be converted into PPLZ via Argox print utility
Stand-alone operation without host	Connected with ArgoKee (Quick Basic mode only)

Notes:
As the font board and flash modules use the same connector they cannot function simultaneously.

14.3 Interface Specifications
14.3.1 Introduction

This appendix presents the interface specifications of I/O ports for the printer. These specifications include pin assignments, protocols and detailed information about how to properly interface your printer with your host or terminal.

14.3.2 Serial

The RS232 connector on the printer side is a female, DB-9.

Pin	Direction	Definition
1	In	DSR
2	In	RxData
3	Out	TxData
5	-	Ground
6	Out	DTR
7	Out	RTS
8	In	CTS
9	Out	+5V

Note:
Pin 9 is reserved for KDU (keyboard device unit) only; therefore do not connect this pin if you are using a general host like a PC.

14.3.3 USB
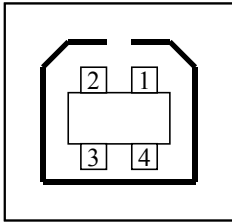
USB series "B" Receptacle Interface

Pin	Signal Name
1	VBUS
2	D -
3	D+
4	GND

Connector Terminal Pin Assignment

14.3.4 Connection with host:

Host 25S		Printer 9P	Host 9S		Printer 9P
(PC or compatible)			(PC or compatible)		
DTR 20	……	1 DSR	DTR 4	……	1 DSR
DSR 6	……	6 DTR	DSR 6	……	6 DTR
TX 2	……	2 RX	TX 3	……	2 RX
RX 3	……	3 TX	RX 2	……	3 TX
CTS 5	……	7 RTS	CTS 8	……	7 RTS
RTS 4	……	8 CTR	RTS 7	……	8 CTS
GND 7	……	5 GND	GND 5	……	5 GND

Alternatively you can just connect the 3 wires in the following way.

Host 25S		Printer 9P	Host 9S		Printer 9P
(PC or compatible)			(PC or compatible)		
TX 2	……	2 RX	TX 3	……	2 RX
RX 3	……	3 TX	RX 2	……	3 TX
GND 7	……	5 GND	GND 5	……	5 GND
pin 4			pin 4		
pin 5			pin 6		
pin 6			pin 7		
pin 20			pin 8		

The most simple way to connect to other hosts (not PC compatible) or terminals is:

Printer		Terminal/Host
Pin 2- RxData	………	TxData
Pin 3- TxData	………	RxData
Pin 5- Ground	………	Ground

In general as long as the data quantity is not too large or you use Xon/Xoff as flow control, there will be no problem at all.

Baud rate: 600, 1200, 2400, 4800, 9600, 19200 and 38400.

Data format: always 7 or 8 data bits; 1,2 stop bit.

Parity : note, even, odd parity.

Handshaking : XON/XOFF as well as CTS/RTS (hardware flow control).

If you run an application with the bundled printer driver under Windows and use the serial port, you should check the above parameters and set the flow control to "Xon/Xoff" or "hardware".

14.3.5 Parallel (Centronics)

The parallel port is a standard 36-pin Centronics. Its pin assignments are listed as following.

Pin	Direction	Definition	Pin	Direction	Definition
1	In	/STROBE	13	Out	SELECT
2	In	Data 1	14,15		NC
3	In	Data 2	16	-	Ground
4	In	Data 3	17	-	Ground
5	In	Data 4	18		NC
6	In	Data 5	19~30	-	Ground
7	In	Data 6	31		NC
8	In	Data 7	32	Out	/Fault
9	In	Data 8	33~36	-	NC
10	Out	/ACK			
11	Out	BUSY			
12	Out	PE			

14.3.6 Auto Polling

Both the serial and parallel ports are active at the same time on this printer, i.e. data can be received on either one, however no provision is made for port contention. If data is transmitted to both ports simultaneously, it will cause the data in the received buffer to be corrupted.

14.4   ASCII TABLE

	0	1	2	3	4	5	6	7
0	NUL			0	@	P	`	p
1	SOH	XON	!	1	A	Q	a	q
2	STX		"	2	B	R	b	r
3		XOFF	#	3	C	S	c	s
4			$	4	D	T	d	t
5		NAK	%	5	E	U	e	u
6	ACK		&	6	F	V	f	v
7	BEL		'	7	G	W	g	w
8	BS		(	8	H	X	h	x
9			)	9	I	Y	i	y
A	LF		*	:	J	Z	j	z
B		ESC	+	;	K	[	k	{
C	FF		,	<	L	\	l	|
D	CR		-	=	M	]	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	_	o	DEL

15. Appendix

15.1 Appendix A: Printer Status

| Blinking LED	Description
MEDIA	The printer is at pause state. Press PAUSE or CANCEL to return to normal state.
MEDIA READY	The media is uninstalled or used up. Load new media to the printer.
RIBBON READY	The ribbon is uninstalled or end-of-ribbon occurred. Load new ribbon to the printer. If you just use thermal media set bit 1 of DIP switch to OFF position.
READY	The format or baud rate of the RS232 communication is inconsistent between the printer and host.
	The cutter can not cut off the media, check the media and cutter.
	The printer buffer is full caused by the loaded soft fonts, graphics or forms. Check the format of these data. Call for service.

## 15.2 Appendix B: Stand-Alone Operation

Stand-Alone operation for keyboard and barcode reader
Apart from related hardware devices and PPLB emulation, in order to use keyboards and barcode readers (scanner) you should follow apply with ArgoKee.

15.3 Appendix C: Dispenser Kit installation

1. Turn off the power switch.
2. Remove the top cover and middle cover.

Top Cover

H Cover

Middle Cover

Chassis 2   Pull
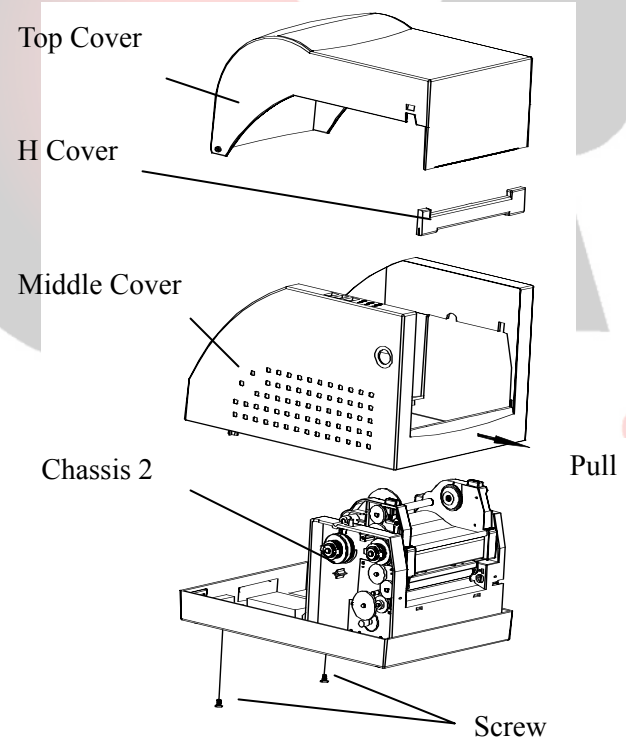
Screw

3. Remove gear (27) and (31).
4. Plug spring–peeler (83) into the right hole on chassis 2 and lock screw (F) up.
5. Put shaft-peeler (86) and peeler-switch (88) into shaft-peeler (87) and then insert it in hole on right side.
6. Guide peeler-switch (85) go through shaft-peeler (87).
7. Hook spring-peeler (83) on the circle notch of shaft-peeler (87).
8. Put spring-peeler (84) into the left hole of chassis 2 and lock screw (F) up.
9. Put peeler-switch (89) into shaft-peeler (87).
10. Hook spring-peeler (84) on the circle notch of shaft-peeler (87).
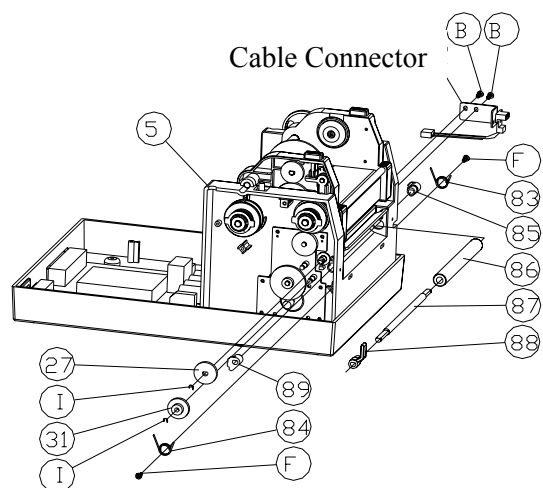
11. Put back gear (27) and gear (31).
12. Mount the cable into chassis 2 and plug the other side into the label on the main board.
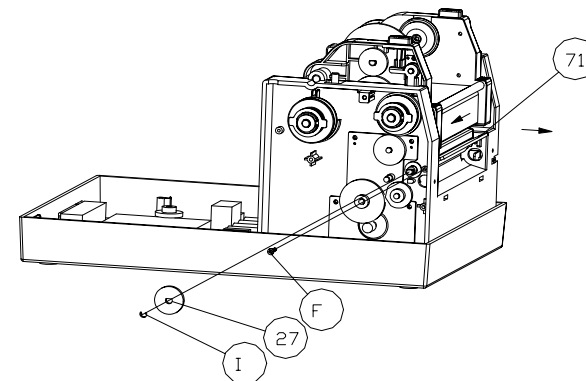13. Close the middle cover.

Peeler-Cover

Cable Connector

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68
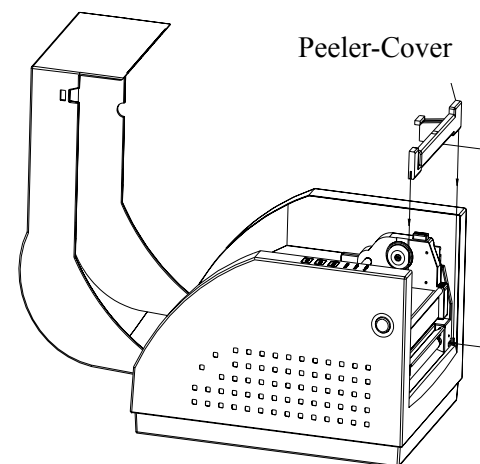
15.4 Appendix D : Cutter Installation

1. Turn off the power switch.
2. Remove the top cover and middle cover.

Top Cover

H Cover

Middle Cover

Pull

Chassis 2
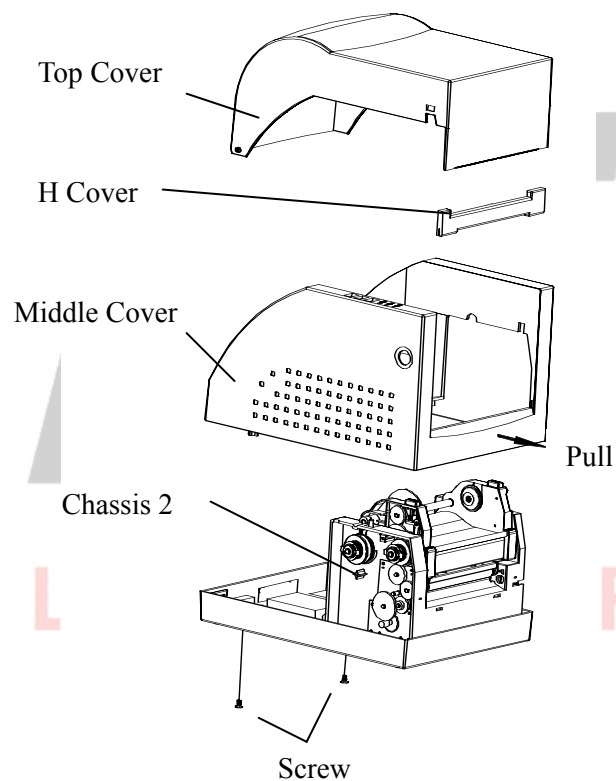
Screw

1. Remove the E- ring(I), gear(27) and release the screw(F).
2. Remove the bracket-peeler(71) from the module.

3. Secure two attached screws (B) for the cable connector.
4. Add a baby board to JP29 on the main board.
5. Plug the cable connector into JP13, and make sure Jumper (J1) position is "2-3"
6. Click back the middle cover.
7. Click back the top cover.
8. Secure two attached screws (M) for the cutter.
9. Plug cutter cable into " External Connector".

External Connector

Cutter Cable
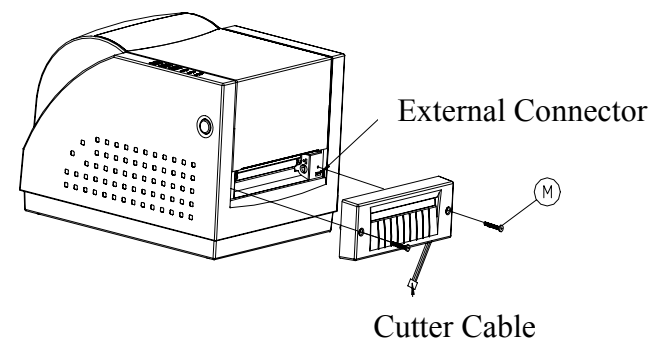
Environmentally sensible disposal of electrical and electronic equipment

Electrical and electronic equipment contains valuable materials that should be supplied to recycling or recovery.
Please dispose of electrical and electronic equipment at qualified collecting points separate from municipal waste.